Index, Technical Section, Paper Trade Journal
Volume 124, January to June, 1947

Jan - Mar. 1947

Compiled by Clarence J. West, Chairman, Committee on Abstracts and Bibliography, TAPPI

The page numbers in the following index refer to the continuous pagination of the Technical Section and not to the individual numbers of the PAPER TRADE JOURNAL. The Convention issue (No. 9, Feb. 27) was not included in the pagination of the *Technical Section*, and, therefore, references to this number are preceded by the letter "C."

Number 8 of this volume contained abstracts of the Convention papers. References to these have been included in the Author Index (preceded by the letter "A" where the papers have been printed); they are not included in the Subject Index because they will appear in full and be indexed in following volumes of THE PAPER TRADE JOURNAL.

To facilitate reference to the individual numbers of the PAPER TRADE JOURNAL, the following table of pagination of the *Technical Section* in each of the 26 numbers of Volume 124 is given.

No. 1	Jan. 2	1- 12		No. 14	April 3	141-152	
No. 2	Jan. 9	13- 24		No. 15	April 10	153-164	
No. 3	Jan. 16	25- 36		No. 16	April 17	165-176	
No. 4	Jan. 23	37- 48		No. 17	April 24	177-190	
No. 5	Jan. 30	49- 60		No. 18	May 1	191-202	
No. 6	Feb. 6	61- 68		No. 19	May 8	203-214	
No. 7	Feb. 13	69- 80		No. 20	May 15	215-226	
No. 8	Feb. 20	81- 96		No. 21	May 22	227-238	
No. 9	Feb. 27	———		No. 22	May 29	239-250	
No. 10	Mar. 6	97-106		No. 23	June 5	251-262	
No. 11	Mar. 13	107-118		No. 24	June 12	263-274	
No. 12	Mar. 20	119-128		No. 25	June 19	275-286	
No. 13	Mar. 27	129-140		No. 26	June 26	287-298	

AUTHOR'S INDEX

A

Abramowitz, W. L. Developments in the treatment of paper with synthetic resins (abstract) 92
Allen, James H. The Interstate Commission on the Delaware River Basin A82, 182
Anthony, A. W., Jr. See Collins, T. T., Jr.
Appling, John W., McCoy, John F., and Shema, B. F. Studies in slime control—1946 ..... A95, 239
Aronovsky, S. I. Preservation of straw in ricks 227
——, Ernst, A. J., and Sutcliffe, H. M. Pulping with sodium sulphite to produce strawboard (abstract) 82
——, Rhodes, Alan, and Lathrop, E. C. Agricultural residue pulps—comparison with typical wood pulps..... A82, 133
Axe, E. J. See Rudolfs, W.

B

Bailey, H. P., and Nadelman, A. H. Alkali and heat recovery in de-ink systems (abstract) 90
Baker, R. R. Heat balance and the paper machine drive (abstract) 84
Bard, J. W. See Baum, M.
Bartsch, A. F. See Wiley, A. J.
Bauer, E. S. Method for combining resin and paper (abstract) 93
Baum, M., Bard, J. W., Salvesen, J. R., and Brabender, G. J. Yield and quality of pulp and waste liquor in sulphite pulping of softwoods (abstract) 87
Beachler, E. D. Paper machine maintenance 156
Beall, Geoffrey. Nomographic treatment of the results from the cupriethylenediamine method of determining the viscosity of cellulose A90, 215
——. Quantitative treatment of a density distribution pattern on photographic paper as produced by the disturbance of a spotlight galvanometer A90, 203
Bechtel, W. G., and Kesler, C. C. Applications of starch viscosity to the paper industry (abstract) 93
Beck, Maxine M. See Cundy, P. F.
Benson, Clyde A., and Brakewood, Harold E. White water clarification by means of the Marx filter A95, 186
Bergendahl, C. J., and Libby, C. E. Beater sizing with the silicones (abstract) 92
Bergstrom, R. E., and Lientz, J. R. Improvements in evaporator engineering 6
Bicking, Charles A. Quality control for the pulp and paper industry..... A89, 177
Bishop, Fred W. See Porter, C. C.
Blockman, A. F. See Salley, D. J.
Bloomquist, W. C. Power distribution systems for paper mills 69
Brabender, G. J. See Baum, M.
Brakewood, Harold E. See Benson, C. A.
Brauns, F. E., and Yirak, Jack J. Decomposition of methylated sprucewood (abstract) 85
Bray, Mark W., and Martin, J. Stanley. Sulphate pulping of Douglas fir, western hemlock, Pacific silver fir, and western red cedar logging and sawmill waste (abstract) 91
Bray, Mark W., and Singer, Rernard. Influence of sodium sulphite and sodium thiosulphate in the sulphate pulping of Engelmann spruce (abstract).. 91
Brown, R. M. General study of kraft mill instrumentation (abstract) 94
Browning, B. L. Effect of sample preparation on analytical values for alpha-cellulose, copper number, and cuprammonium viscosity A96, 158
——, and Graff, John H. Disintegration of viscose-treated papers C134
Brumley, George W. Washing sulphate pulp with screw presses 191
Buchanan, M. A., Lollar, Robert M., and Niemeyer, Donald D. The tanning properties of lignosulphonates produced by different cooking conditions A88, 196

C

Calhoun, George M. See Norton, S. G.
Carson, F. T. The gravimetric (weighed-cell) method of determining water vapor permeability (abstract) 88
Carter, R. E. See Hewett, P. S.
Cartwright, L. C. Use of Ottawa test sand in the evaluation of sealed flexible packages 275
Catlin, J. B., and Strieby, J. C. Method for evaluating and reporting product quality A90, 161
Cherepow, Frederick H. Flow method for determining water vapor permeability (abstract) 88
Church, R. J. See Hewett, P. S.
Clemens, Robert L. Modern recausticizing plant practice (abstract) 91
Cliffe, W. R. The effect of temperature on the slaking of reburned lime sludge 117
Collins, T. T., Jr., Seaborne, C. R., and Anthony, A. W., Jr. Removal of salt cake fume from sulphate recovery furnace stack gases by scrubbing....A91, 253
Coven, G. E. See Rochow, T. G.
Crosson, John W. Technical merchandising of paper (abstract) 81
Cundy, Paul F., and Beck, Maxine M. The determination of alpha-cellulose in unbleached pulps A96, 194

D

Davis, E. G. See Rochow, T. G.
Dickerman, G. K. See McGovern, J. N.
Dries, M. J. See Naponen, G. E.

E

Elder, L. W. Transmission of odor through packaging materials (abstract) 88
Ender, C. D. See Little, J. G.
Eyler, R. W., and Hall, R. T. Determination of carboxymethylcellulose in paper (abstract) 96

F

Forman, Loren V. See Niemeyer, D. D.
——, and Niemeyer, Donald D. Grinding the beater surface of the standard laboratory beater 11
Fyfe, Thomas. Qualitative test for mineral filler in paper 64

G

Gehm, Harry W. See Wiley, A. J.
Gerace, Thomas. Modern sulphite acid making A87, 151
Gillespie, W. F. See Sapp, J. E.
——, and Goss, J. J. Jordan refining of southern sulphate pulp 206
Goss, J. J. See Gillespie, W. F.
Graff, John H. Evaluation of different methods of speck counts in paper..A94, 292
——. See also Browning, B. L.
Green, Henry. How to determine the desirable rheological properties of coatings (abstract) 93
Green, Ralph E., Sams, Robert H., and Wills, John H. Effect of the adhesive on the quality of fiberboard (abstract) 85
Griffin, Roger C. Report of Standards Committee—1946 141

H

Hall, R. T. See Eyler, R. W.
Halvorsen, Gordon G. Diatomaceous filteraid filtration of paper mill waters and effluents (abstract) 95
Hannan, Martha L. See Harris, E. E.
Hannan, Philip L. Open top diffusers 173
Hannaway, George S. Pulping of straw with digestion liquors containing sodium sulphite (abstract) 81
Harris, Elwin E., Hannan, Martha L., and Marquardt, Ralph R. Production of fodder yeast from wood sugars contained in sulphite waste liquor and wood hydrolyzates (abstract) 87
Hartwig, Hans H. Method for locating points of gas leakage in packages and packaging materials A85, 225
Hedbring, O. E. S. White water system for cylinder board mill A94, 217
Hedgepeth, L. L. Modern water chlorination A83, 259
Helms, J. F. See Pierce, S. A.
Hewett, P. S., Carter, R. E., and Church, R. J. Effect of urea resins on starch clay coating compositions A93, 263

OCT 14 '47
q 605
P21t
v.124 pt.1

Horsey, Eleanor F. Sodium carboxymethylcellulose for papermaking (abstract) 96
Hough, W. R., and Van Nort, J. L. Spot conversion for adjustable speed (abstract) 84
Hunter, Richard S. Relation of gloss to color (abstract) 85
Hyttinen, Axel, Mackin, G. E., and Schaefer, E. R. Grinding of quaking aspen for use in printing papers (abstract) 86

J

Jahn, Edwin C. Scandinavian research organizations A81, 233
Johnston, Henry D. Dandy roll drive for fine paper manufacturing (abstract) 84

K

Keller, E. L., and McGovern, J. N. Effect of pre-impregnation, pulping degree, and pulping temperature in semichemical pulping (abstract) 87
Kemmer, Frank N. Modern methods of feedwater conditioning for high pressure boiler plants (abstract) 83
Kesler, C. C. See Bechtel, W. G.
Kingsbury, R. M. See Simmonds, F. A.
Klein, Maurice, McCall, F. S., and Lientz, J. R. The effect of certain variables in the operation of rotary vacuum pulp washers 52

L

Lathrop, E. C. See Aronovsky, S. I.
Lawrence, W. P. Chlorite bleaching of southern pine kraft pulp A89, 230
——. Collection of sulphate turpentine. C128
Lester, Ivan L., and Lyons, S. C. Testing clays for paper machine and brush coating (abstract) 93
Levy, R. M. See Schur, M. O.
Lewis, R. D. See Willard, C. J.
Libby, C. E. See Bergendahl, C. J.
Lientz, J. R. See Bergstrom, R. E.; Klein, M.
Liskow, John G. See Porter, C. C.
Little, J. G., and Ender, C. D. Synthetic resins for use in the formulation of nitrocellulose paper lacquers 97
Lollar, Robert M. See Buchanan, M. A.
Lorenzini, E. M. Postwar developments with emulsified asphalt sizing in cylinder boards A85, 251
Lowe, Gordon E. See Norton, S. G.
Lyons, S. C. See Lester, Ivan L.

M

McCall, F. S. See Klein, M.
McCoy, John F. See Appling, J. W.
McGovern, J. N. See Keller, E. L.
—— and Dickerman, G. K. Manufacture of pulp and paper and related products from wood in western Germany 13, 25
McGrath, Louise E. Biochemical oxygen demand—a new expression for the papermaker A83, 129
Mackin, G. E. See Hyttinen, A.
McLaren, A. D. Adhesion of high polymers to cellulose (abstract)..... 93
Marquardt, Ralph R. See Harris, E. E.
Martin, J. Stanley. See Bray, M. W.
Meller, Alexander. The cold alkaline purification of wood cellulose. I. Some effects of bleaching and acid hydrolysis on resistant pentosans C-04
Muench, Carl G. Outline of the insulation board industry (abstract)..... 86
Murdock, Harold R. Sodium sulphite woodpulps 37

N

Nadelman, A. H. See Bailey, H. P.
Naponen, G. E., Dries, M. J., and O'Brien, A. S. Microiodometric method for the determination of glue or gelatin in paper (abstract) 96
Nelson, Richard. Spot conversion drives in paper mills (abstract) 84
Niemeyer, Donald D. See Buchanan, M. A.; Forman, L. V.
—— and Forman, Loren V. Repulping of melamine resin-treated wet-strength paper A94, 143
Norton, S. G., Lowe, Gordon E., and Calhoun, George M. Corrosion in storage tanks for crude sulphate turpentine 192

O

O'Brien, A. S. See Naponen, G. E.
Oliner, A. W., and O'Neil, F. W. Properties of flexible impregnated sheets (abstract) 92
O'Neil, F. W. See Oliner, A. W.

P

Parkinson, Leonard. See Wiley, A. J.
Pascoe, T. A. Review of some studies relating the chemical construction of pulps to their physical properties (abstract) 96
Perot, Jules J., Jr. Study of certain factors affecting the filtration of smoke by fibrous materials A84, 278
Pew, J. C. See Schwartz, S. L.
Pierce, S. A., and Helms, J. F. Method for the determination of water vapor permeability at low temperatures (abstracts) 89
Pitzer, John C. Papers for plastic laminates (abstract) 92
Porter, Cover C., Bishop, Fred W., and Liskow, John G. Elimination of lime stack losses with the type N Rotoclone 61
Porter, Richard W. Economics of mill instrumentation 102
Price, D. Rosin sizing. II. Effect of alumina on rosin sizing (abstract).... 96

R

Renner, Maynard S. Sources of variability in water vapor permeability determinations (abstract) 90
Rhoads, J. Edgar. Drive for the Carthage chipper (abstract) 84
Rhodes, Alan. See Aronovsky, S. I.
Richter, R. C. An approach to a critical study of pulp washing at National Container Corporation 104
Rochow, T. G., Coven, G. E., and Davis, E. C. Resinography (abstract) 92
Rudolfs, Willem, and Axe, E. J. Variations and similarities of paperboard mill white waters (abstract) 95

S

Salley, D. J., and Blockman, A. F. Study of wet strength mechanism—effect of melamine resin on the bonding of paper fibers (abstract) 94
Salvesen, J. R. See Baum, M.
Sams, Robert H. See Green, Ralph E.
Sapp, J. E., and Gillespie, W. F. Influence of tension during drying upon paper strength C120
Schafer, E. R. See Hyttinen, A.; Schwartz, S. L.
Schur, M. O., and Levy, R. M. Influence of oxidation of pulp on wet strength A94, 221
Schwartz, S. L., Pew, C. J., and Schafer, E. R. Production of insulating board and hardboard from western sawmill and logging waste (abstract) 86
Seaborne, C. R. See Collins, T. T., Jr.
Seborg, C. O., and Simmonds, F. A. Additional data on the recovery of wet pulp mats from compressive deformation (abstract) 87
Shema, B. F. See Appling, J. W.
——. Method for evaluating the fungicidal properties of treated paper and paperboard (abstract) 85
Simmonds, F. A. See Seborg, C. O.
—— and Kingsbury, R. M. Bleaching of semichemical pulps 39
Singer, Bernard. See Bray, M. W.
Sprout, Oliver S., Jr., and Toovey, Thomas W. Comparative studies in the chlorination of woodpulp..A89, 107, 119
Stevens, David H. Forestry problems in Maine 49
Strieby, J. G. See Catlin, J. B.
Stromquist, W. G. Progress of pollution abatement in the Tennessee Valley A83, 219
Sutherland, D. Manson. Progress report on continuous refining of high yield pulps at high temperatures and alkalinity A91, 153

T

TAPPI. Cupriethylenediamine disperse viscosity of pulp 1
——. Preparation of magnesium-oxide standard for spectral reflectivity..... 287
Toovey, Thomas W. See Sprout, O. S., Jr.
Traquair, John. Fibrous Raw Materials Committee report—1946 165

V

Van den Akker, J. A. Application of the electric hygrometer to the determination of water vapor permeability at low temperatures 269
——. I.C.I. standard observer and coordinate system and their use in studies of the color of paper (abstract) 88
——. See also Wink, W. A.
Van Nort, J. L. See Hough, W. R.
Vincent, G. P. Bleaching pulp with mixtures of chlorine dioxide and chlorine A89, 289

W

West, Clarence J. United States patents 58, 213
Wiley, Averill J., Parkinson, Leonard, Gehm, Harry W., Wisniewski, Theodore F., and Bartsch, A. F. River reaeration 123
Willard, C. J., and Lewis, R. D. Effect of combined straw on new seedlings A82, 169
Wills, John H. See Green, R. E.
Wilson, Norval F. Evaluation of nine-point straw for corrugating (abstract) 82
Wink, Willmer A., and Van den Akker, J. A. Penetration of water in insulation board (abstract) 86
Wisniewski, Theodore F. See Wiley, A. J.

Y

Yirak, Jack J. See Brauns, F. E.

SUBJECT INDEX

A

Acid towers, German 16
Aerobacter aerogenes
Dowicide G at various pH, effect of 242
Lignasan at various pH, effect of 242
Merfenel A at various pH, effect of 242
pH, effect of 242
Rocceal at various pH, effect of.... 242
Agricultural residue pulps
Beating, effect of..... 134
Tackle, sharp and dulled, effect of. 134
Wood pulps, comparison with..... 133
Agricultural wastes, effect on seeding in fields 169
Alfalfa seeding, effect of combined straw 169
Alpha pulp
Air permeability, effect of fillers.. 282
German 14
Smoke filtering efficiency
Fillers, effect of 282
Sheet density, effect of 280
Aluminum foil, water-vapor permeability 176
Asbestos, effect on smoke filtering efficiency of pulps 283
Aspen semichemical pulp, bleaching.... 39
Aspergillus niger
Dowicide G at various pH, effect of 242
Lignasan at various pH, effect of.. 242
Merfenel A at various pH, effect of 242
pH, effect of 242
Rocceal at various pH, effect of... 242
Asphalt, emulsified, sizing board with.. 251

B

Bacillus mycoides
Dowicide A at various pH, effect of 242
Lignasan at various pH, effect of.. 242
Merfenel A at various pH, effect of 242
pH, effect of 242
Rocceal at various pH, effect of.... 242
Bagasse pulp, properties..... 134
Barking
Beechwood 15
Bezner knife barker..... 15
German practice 15
Shongau-Voith system 15
Wagner-Dorries system 15
Bearings
Antifriction, protection 156
Lubrication 157
Beater, laboratory, grinding of tackle.. 11
Beechwood, barking 15
Bezner knife barker..... 15
Biochemical oxygen demand
Determination 130
Waste waters, determination in.... 130
Black liquor, evaporation..... 6
Black tupelo semichemical pulp, bleaching 39
Bleaching
Beech sulphate pulp..... 19
Calcium hypochlorite
Semichemical pulp 39
Southern pine kraft pulp..... 230
Chlorinator, German 19
Chlorine dioxide-chlorine mixture.. 289
German practice 14, 18
Nitrating pulp, German practice.... 19
Sodium chlorite, southern pine kraft pulp 230
Sodium hypochlorite, semichemical pulps 39
Sodium peroxide, semichemical pulps 39
Spruce pulp, German practice..... 18
Viscose pulp, German practice..... 19
Board mill, white water system for.... 217
Boards
Asphalt sizing 251
German practice 29
V-board, postwar uses..... 251
Water-vapor permeability 176
Wax-coated, water-vapor permeability 176
Book paper mills, slime control studies in 245
Book reviews
Carbon-carbon double bonds..... C134
Chemical senses 168

Chemical specialties 36
Chemistry and technology of plastics 274
Chemistry for the executive..... 36
Chemistry of commercial plastics.. 202
Fuels, combustion and furnaces.... 68
Fundamentals of plastics..... 228
Injection molding of plastics..... 238
Low pressure laminating of plastics 286
New fibers 64
Principles of color and color mixing 214
Pulpwood 118
Regression analysis of production costs and factory operations.... 160
Standard handbook of textiles..... 286
Starch for paper coating..... 34
Technological and physical investigations on natural and synthetic rubbers 214
Technology of adhesives..... 291
Textile fibers 258
Thermodynamics for chemists..... 291
Box mill waste, Marx filter..... 186
Bronze birch borer in Maine forests... 50
Burner gases
Absorption 152
Cooling 151
Purification 16

C

Calcium carbonate, effect on smoke filtering efficiency of pulp 283
Capacitors, advantages of..... 78
Cellophane
Pliofilm laminate, oxygen permeability 277
Water vapor permeability..... 176
Cellulose acetate-Pliofilm laminate, oxygen permeability 277
Central Laboratory of Swedish Pulp Association 235
Chemipulp-Kimberly Clark Corporation spray cooler 151
Chip screens, German..... 16
Chippers, German 16
Chlorine
Chlorine dioxide mixture, bleaching with 289
Water, reactions in..... 261
Chlorine dioxide, bleaching with..... 289
Clover seeding, effect of combined straw 169
Coating, starch clay
Urea resin with 263
Viscosity, effect of urea resins.... 265
Consistency regulators 189
Constructional materials
Evaporator, black liquor..... 7
Sulphate turpentine storage tanks.. 192
Containers
Flexible sealed
Ottawa test sand for test of.. 275
Oxygen permeability, test of... 275
Shelf life, determination of... 277
Frozen foods, water-vapor permeability 176
Gas leakage points, test for..... 225
Corrosion by sulphate turpentine..... 192
Crepe paper, German..... 27
Cupriethylenediamine solution
Calibration 2
Preparation 1

D

Defects, classification of..... 162
Delaware River Basin
Schuylkill River restoration..... 184
Soil and forest conservation..... 184
Stream pollution abatement..... 182
Water supply diversion projects. 183
Diatomaceous earth, effect on smoke filtering efficiency of pulp..... 283
Diffusers, open top, pulp washing with. 173
Dowicide G
pH, effect of..... 242
Straw preservation with..... 227
Drying
German practice 18
Moisture control, continuous..... 139
Dunmore electric hygrometer, modified.. 269

E

Electric hygrometer
Calibration 270
Preparation 270
Water-vapor transmission at low temperature, determination of.... 269
Electric power
Distribution system 69
Equipment, cost of..... 79
Load-center system 72
System grounding 76
Ester gum, use in paper lacquers..... 99
Evaporators
Black liquor 6
Constructional materials 7
Operating techniques 9
Stainless steel 7
Tubes, chromium plated 8

F

Fillers
Paper, qualitative test 64
Smoke filtering efficiency of pulp, effect on 283
Finkh screen 14, 18
Flambeau River, reaeration..... 123
Flax shives, pulp properties..... 134
Flocculation test, photographic record, statistical analysis 203
Forestry
Insects, losses by..... 50
Maine, problems in..... 49
Taxation, role in..... 51

G

German pulp and paper industry..... 13
Glassine paper (German)..... 28
Greaseproof paper (German)..... 28

H

Hard fiberboard, German..... 30
Helsinki Technical Institute..... 233
Hemp hurds, pulp properties..... 134
Hydrogen ion concentration
Dowicide G, inhibiting concentration, effect on 242
Lignasan, inhibiting concentration, effect on 242
Merfenel A, inhibiting concentration, effect on 242
Roccal, inhibiting concentration, effect on 242

I

Industrial laboratories, Scandinavia... 235
Insects, forest losses from..... 50
Institute of Pysical Chemistry, Uppsala 233
Instrumentation
Economics of 102
Maintenance 103
Interstate Commission of Delaware River Basin 182

J

Jordan
Miami No. 2 and No. 5, comparison of 210
Sulphate pulp, refining of..... 206

K

Kraft paper
Aluminum foil laminate, oxygen permeability 277
Polyvinyl butyral coated, oxygen permeability 277
Kraft paper mill, slime control studies.. 244
Kraft pulp
Acid hydrolyzed, pentosan content.. C112
Alkaline purification C104
Bleaching
Chlorination, flow sheet 120
Chlorine dioxide-chlorine 289
Effect of 107, 119
German methods 24
Single-stage chlorination 111
Threshold chlorination with reclaimed liquor 124
Two-stage chlorination 112
Brightness, effect of bleaching..... 120
Bursting strength, effect of bleaching 120
Folding enduraice, effect of bleaching 120
Freeness, effect of bleaching.. 120
German processes 23
High yield, disk refining..... 153
Hypochlorite bleached, pentosan content C112
Pentosans, removed by cold alkali.. C104
Southern pine
Calcium hypochlorite bleaching. 230
Chlorite bleaching 230
Tearing resistance, effect of bleaching 120
Viscosity, effect of bleaching..... 120
Washing, screw presses..... 191
Wet strength, effect of oxidation.. 221

L

Lacquers, paper, synthetic resins for... 97
Lewisol, use in paper lacquers..... 98
Lignasan
Inhibiting concentration, effect of pH 242
Kraft paper mills, use in..... 244
Mechanical pulp mills, tests in..243, 248
Lignin, content of agricultural residue pulps 135
Lignosulphonic acid, tanning with..... 196
Lime kilns, elimination of stack losses.. 61
Lime sludge, reburned, slaking, effect of temperature 117
Lubrication, paper machine..... 156

M

Magnesium, burning, method of..... 288
Magnesium oxide standard, preparation of 287
Marx filter for white water..... 186
Mechanical process, German practice... 25
Mechanical pulp, German uses..... 25
Mechanical pulp mill, slime control studies 243, 246
Melamine resin-treated paper, repulping 143
Merfenel A, inhibiting concentration, effect of pH 242
Merfenelope, tests in mechanical pulp mills 243
Morden beater for agricultural residue pulps 136

N

Newsprint, German practice.....25, 29
Nitrocellulose lacquers for paper..... 98
Normal quality reports..... 163
Norwegian Forest Research Institute... 235
Norwegian Technical College..... 233

O

Ottawa test sand for sealed flexible package tests 275
Oxygen, dissolved, determination..... 131

P

Packaging materials, test for gas leakage points 225
Paper
Basis weight
Bursting strength, relation of.. 181
Shewhart control chart..... 178
Book, normal quality report..... 162
Bursting strength
Basis weight, relation of..... 181
Shewhart control chart..... 180
Tension during drying, effect of C120
Drying, effect on strength properties C120
Elongation, effect of tension during drying C120
Locker, repulping 149
Map, wet strength, repulping..... 149
Melamine treated
Repulping 143
Steam Jet Process..... 147
Moisture content, control..... 139
Normal quality report.. 162
Tarpaulin, repulping 144
Tensile strength, effect of tension during drying C120
Waxed, water-vapor permeability... 176
Wet strength
Jack pine, pulping with..... 147
Melamine resin, repulping of.. 143
Paper base plastics, German practice.... 32
Paper birch semichemical pulp, bleaching 39
Paper industry, Shewhart control chart 177
Paper Industry's Research Institute, Norway 234
Paper machine
Inspection 156
Lubrication 156
Maintenance 156
Paper mill
Automatic control, advantages of... 102
Power distribution systems 69
Paper specialties, German..... 31
Paper testing
Blocking test 99
Fillers, qualitative test..... 64
Flexibility test 99
Greaseproofing test 99
Speck counts 292
Viscose-treated, disintegration of.. C134
Wetrub resistance of coated paper. 265
Papermaking materials
Agricultural residues 166
Annual plants 167
Arundo donax 167
Bagasse 166
Bamboo 166
Donax cane 167
Flax 166
Hard fibers 165
Rags 165
Ramie 167
Review, 1946 165
Straw 166
Urtica wilis 167
Waste paper 167
Yawa fiber 167
Patents, United States.....58, 213
Pease-Anthony cyclonic-spray scrubber.. 254
Penetrometer for testing smoke filters.. 279
Pentosans
Agricultural pulps, content of..... 135
Pulp, removal from with cold alkali C104
Residual, nature of C106
Petrex, use in paper lacquers..... 100
Poly-Pale ester, use in paper lacquers.. 98
Power distribution system..... 69
Product quality, evaluating and reporting 161
Pulp
See also Alpha pulp
Alphalint (German) 20
Beech
Bleaching 19
German 20
Chemipulper, refining 155
Consistency, effect of jordan refining 207
Consistency regulator 189
Drying, German practice..... 18
Fiber length, effect on smoke filtering efficiency 284
Finkh screen 18
Hardwood, semichemical, bleaching.. 39

High alpha, German production.... 20
New Zealand flax, smoke filtering with 282
Nitrating, bleaching, German practice 19
Periodate oxidized
Properties 222
Wet tensile strength..... 221
Rotary knotter 18
Screening, German practice..... 18
Semichemical 38
Bleaching 39
Sheet density and smoke filtering efficiency 280
Smoke filter, test for use as..... 280
Sodium sulphite 37
Spruce, bleaching, German practice 19
Viscosity, cupriethylenediamine, nomograph for 215
Washing
Diffusers, open top 173
Dilution factor in..... 56
Five-stage system 53
National Container Corporation 104
Repulper in system..... 54
Rotary vacuum system..... 52
Union Bag and Paper Corp. Cavannah plant 52
Wet strength, effect of oxidation.. 221
Pulp industry, quality control..... 177
Pulp testing
Alpha-cellulose
Sampling preparation 158
Unbleached pulp 194
Beater, calibration of..... 11
Beater tackle, grinding..... 11
Copper number, sample preparation 158
Viscosity
Conversion factors 5
Cupriethylenediambine method . 1
Dissolving tube 3
Falling-ball method 3
Pipet method 2
Sample preparation 158
Pulping
Prehydrolysis, German procedure.. 20
Sodium sulphite 37
Pulpwood
Chipping, German practice..... 16
Knot borer 15
Pyridose, tests in mechanical pulp mill 243, 246

Q

Quality, evaluating and reporting..... 161
Quality index 161

R

Rags, review, 1946 165
Reaeration equipment 124
Refiner, disk, single rotating..... 154
Refining
Disk, high yield sulphite pulp..... 153
Sulphate pulp with jordan..... 206
Tackle, effect of..... 210
Research, German 33
Rice straw, pulp properties..... 134
River water, reaeration of..... 123
Roccal, inhibiting concentration, effect of pH 242
Rosin acid esters, use of paper lacquers 98
Rosin esters, use for paper lacquers... 98
Roto-clone, use with lime kilns..... 61
Royal Academy of Science..... 234
Royal Swedish Academy of Engineering Sciences 234
Rubber hydrochloride, water vapor permeability 176

S

Santobrite, tests in mechanical pulp mills 243, 249
Savealls, board mill..... 218
Scandinavian research organizations.... 233
Schauffelburger circulating system..... 16
Screw press, kraft pulp washing with.. 191
Semichemical pulp, bleaching..... 39
Shelf life of flexible containers, determination of 277
Shewhart control chart..... 177
Shongau-Voith barker 15
Showers, cylinder board mill..... 218
Sizing of board, emulsified asphalt for.. 251
Slime control 239
Book paper mill, studies in..... 245
Kraft paper mill, studies in..... 244
Mechanical pulp mill, studies in... 243
Smoke filter
Basis weight, effect of..... 281
Efficiency, factors in..... 278
Fiber length of pulp, effect of..... 284
Resistance factor 283
Sheet density, effect of..... 280
Sodium chlorite
Alpha-cellulose determination, use in 194
Southern pine kraft pulp, bleaching of 230
Sodium salts, recovery from stack gases of sulphate recovery furnace..... 253
Sodium Sulphate pulps..... 37
Southern cottonwood semichemical pulps, bleaching 39
Speck count, comparison of methods... 292
Spinning paper, German.....27, 32
Spruce budworm in Maine forests..... 50
Staybelite, use in paper lacquers..... 98
Stack gases, sulphate recovery furnace
Sodium salts, recovery of..... 253
Venturi scrubber for..... 256
Starch clay coatings
Urea resins with..... 263
Viscosity, effect of urea resins.... 265
Steam-Jet process for wet-strength paper 147
Straw
Combined, effect on alfalfa and clover stands 169
Dowicide G, preservation with.... 227
Preservation in ricks..... 227
Sisal-kraft paper cover for ricks.. 228
Stream pollution
Delaware River Basin..... 182
Marx filter for prevention..... 187
Tennessee River system..... 219
Water aeration for prevention..... 123
Sugar maple semichemical pulp, bleaching 39
Sulphate pulp
See also Kraft pulp
Acid hydrolyzed, pentosan content. C112
Alkaline purification C104
Hypochlorite bleached, pentosan content C112
Pentosans, removal by cold alkali... C104
Refining, jordan 206
Sulphate turpentine
Collection of C128
Decanter C132
Production C128
Storage tanks, materials for..... 192
Yields C128
Sulphite cooking liquor
German preparation 16
Lurgi system 16
Manufacture 151
Milk of lime system..... 152
Pyrites, preparation from..... 16
Sulphite digesters
German 16
Relief gas 16
Schauffelburger circulating system.. 16
Sulphite process
Cooking control 17
German 14, 15
Sulphite pulp
Acid hydrolyzed, pentosan content.. C112
Alkaline purification C104
Beech, German practice..... 17
Bleaching
Chlorine 108
German practice 18
Hypochlorite bleached, pentosan content C112
Pentosans, removal by cold alkali.. C104
Sulphite relief gases..... 16
Recovery 152
Sulphite towers 152
Sulphite waste liquors
Analysis 198
Aspen, tanning with 196
Color as control of cooking..... 17
Combustion, German procedure.... 23
Evaporation, German procedure.... 22
Fermentation, German procedure... 21
German utilization 21
Rayon pulp, tanning with..... 196
Spruce, tanning with..... 196
Stream pollution, reaeration for prevention 123
Tanning compositions 23
Tanning with 196
Utilization 14
Sulphur burner, rotary..... 151
Swedish Royal Technical Institute..... 233
Swedish Wood Research Institute...235, 237
Sweet gum semichemical pulp, bleaching 39
Synthetic resins, use in paper lacquers 97

T

TAPPI
Fibrous Raw Materials Committee, report, 1946 165
Standards Committee, report, 1946. 141
TAPPI Standard
T 230 sm-46 1
T 633 m-47 287
Taxation, role in forestry..... 51
Tennessee, Pollution Control Board.... 279
Tennessee Valley Authority..... 219
Paper mills, co-operation with..... 220
Tissue paper, German..... 27
Titanium dioxide, effect on smoke filtering efficiency of pulp..... 283

U

Urea-formaldehyde resins, use with starch-clay coatings 263

V

Venturi atomizer 256
Vinsol, use in paper lacquers..... 98

W

Wagner-Dorries barking system..... 15
Waste paper, review, 1946..... 167
Waste waters, determination of biological oxygen demand 130
Water
Chlorination 259
Chlorine, reaction of..... 261
Dissolved oxygen
Determination of 130
Reaeration, effect of..... 123
River, reaeration 123
Water-vapor permeability
Comparison method 272
Dynamic method 271
Hygrometric methods 269
Low temperature
Determination 174
Electric hygrometer for..... 269
Sweep-gas method 273
Wet strength paper, German..... 31
Wheat straw
See also Straw
Pulp properties 134
White ash semichemical pulp, bleaching 39
White water
Biological oxygen demand, determination of 130
Board mill, system for..... 217
Marx filter 187
Wood room, German practice..... 15

Y

Yellow poplar semichemical pulp, bleaching 39